

ATTACHMENT E

MEMO TO : File
Minnkota Power Cooperative

FROM : Steven F. Weber, Manager *SW*
Air Quality Impact
Div. of Environmental Engineering

RE : Revision of Calpuff Class I Modeling
Results to Eliminate Impact of
Milton R. Young Station

DATE : February 25, 2000

Calpuff Class I area modeling results were revised to eliminate the contribution of Milton R. Young Station. A further revision was performed to eliminate the combined impact of Milton R. Young, Leland Olds, and Stanton Stations. The effect of these two exercises are shown in the attached tables, where the revised scenarios are compared with the original results. Note that the second revision results in compliance with PSD Class I increments at Fort Peck and Medicine Lake Class I areas.

SFW:saj

xc/enc: Jeff Burgess
Dana Mount
Terry O'Clair
Tom Bachman
Rob White
Francis Schwindt ✓



EXHIBIT E

Calpuff Class I Increment Results SO₂*
(µg/m³)

	Theodore Roosevelt National Park								
	South Unit			North Unit			Elkhorn R. Unit		
	①	②	③	①	②	③	①	②	③
<u>3-hr Predictions</u>									
Highest	68.4	67.4	61.7	77.7	76.5	69.0	40.4	40.1	37.4
High, 2 nd High	45.0	43.5	35.8	43.0	40.1	32.6	36.5	36.0	32.3
Max # of Exceedances**	7	6	3	9	7	4	2	2	2
<u>24-hr Predictions</u>									
Highest	15.0	14.7	12.9	18.3	17.2	15.0	13.6	13.6	11.0
High, 2 nd High	13.4	12.4	10.5	12.7	11.9	10.7	13.2	12.4	10.2
Max # of Exceedances**	10	10	7	22	19	15	10	10	9
<u>Max Annual Prediction</u>	1.19	1.13	1.10	1.53	1.42	1.38	0.98	0.89	0.86

* PSD Class I increments for SO₂ are 25 µg/m³, 5 µg/m³, and 2 µg/m³ for 3-hour, 24-hour, and annual averages, respectively.

** Worst-case receptor, year.

① Original results.

② Original results without contribution of Milton R. Young plant.

③ Original results without contribution of Milton R. Young, Leland Olds, and Stanton plants.

Calpuff Class I Increment Results SO₂*
(μg/m³)

	Lostwood Wilderness Area			Medicine Lake Wilderness Area			Fort Peck Reservation		
	①	②	③	①	②	③	①	②	③
<u>3-hr Predictions</u>									
Highest	38.5	36.8	33.7	39.4	34.4	26.9	34.3	31.0	23.0
High, 2 nd High	34.3	29.1	23.8	30.2	25.1	19.4	33.5	29.7	20.3
Max # of Exceedances**	5	5	1	2	2	1	2	2	0
<u>24-hr Predictions</u>									
Highest	9.4	8.3	7.2	10.6	9.1	7.2	11.5	11.0	8.9
High, 2 nd High	8.6	7.2	5.8	7.1	6.0	4.9	7.4	6.4	4.7
Max # of Exceedances**	15	7	3	4	3	1	4	3	1
<u>Max Annual Prediction</u>	0.74	0.59	0.54	0.26	0.20	0.18	0.28	0.22	0.20

- * PSD Class I increments for SO₂ are 25 μg/m³, 5 μg/m³, and 2 μg/m³ for 3-hour, 24-hour, and annual averages, respectively.
- ** Worst-case receptor, year.
- ① Original results.
- ② Original results without contribution of Milton R. Young plant.
- ③ Original results without contribution of Milton R. Young, Leland Olds, and Stanton plants.